

# Estimating the Temperature of Hot Lava at the Kilauea Vent with AVIRIS Spectral Measurements

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In April 2000 AVIRIS over flew the active volcanic vent on the big island of Hawaii. These data have been analyzed to assess the expressed radiometric temperature of the hot lava measured in the AVIRIS spatial resolution elements. A linear mixing approach has been used to account for the small hot targets in the larger 20 by 20 meter AVIRIS spatial elements. A quick analysis has been performed to assess the expression in the AVIRIS spectra of water vapor and carbon dioxide that may be emitted from the volcanic vent. The measurements, analyses, and results of this investigation are presented.